

4.5cm broad band C/X secondary focus receiver (4000-9300 MHz)

This is a broad-band receiver with two orthogonal linear polarizations (at a 45°-angle with the horizon). The receiver delivers 4 basebands (each with two polarizations):

Baseband	Center Frequency	Bandwidth
1	5.250 GHz	2500 MHz
2	6.750 GHz	2500 MHz
3	6.668 GHz	200 MHz
4	4.829 GHz	200 MHz

Calibration Information

Frequency [GHz]	Channel	Polarisation	Tcal [K]	Tsys [K]	Sensitivity [K/Jy]	SEFD [Jy]	Aperture Eff. [%]	TMB/S [K/Jy]	Main Beam Eff. [%]	FWHM [arcsec]	Last update
6.668	1	lin	4.5	27	1.54	17	54	2.2	63	102	Nov 2016
6.668	2	lin	4.1	28	1.54	18	54	2.2	63	102	Nov 2016
normalized Gain curve ($G = A0 + A1 \cdot Elv + A2 \cdot Elv^2$)							Observed in confirmed				
A0 = 0.9928		A1 = 4.212E-4		A2 = -6.158E-6		Jun 2016					

Comments:

- The gain curve was corrected for opacity (though it is small, < 0.02 throughout the band).

Version description for OBSINP

Channel assignment in the MBFITS data files

Tcal and Tsys measurements

From: <https://eff100mwiki.mpifr-bonn.mpg.de/> - Effelsberg 100m Teleskop

Permanent link: https://eff100mwiki.mpifr-bonn.mpg.de/doku.php?id=information_for_astronomers:rx:s45mm&rev=1570611715

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